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09/418,943	10/15/1999	TIMOTHY CHARLES SOWELL	202231	9508

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EXAMINER

NGUYEN, NGA B

ART UNIT

PAPER NUMBER

3628

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/418,943

Applicant(s)

SOWELL, TIMOTHY CHARLES

Examiner

Nga B. Nguyen

Art Unit

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-44, 53-55 and 74-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-44, 53-55 and 74-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is the answer to the Amendment filed on June 19, 2003, which paper has been placed of record in the file.
2. Claims 1-12, 14-44, 53-55, and 74-77 are pending in this application.

Response to Arguments/Amendment

3. Applicant's arguments with respect to claims 1-12, 14-44, 53-55, and 74-77 have been considered but are not persuasive.

Claim Rejections - 35 USC §101

Examiner agrees with the applicant that claims 53-55 directed to "functional descriptive material", but the claimed invention is still directed to non-statutory subject matter because the claimed inventions contain data structure per se and computer program per se (see explain below).

Claim Rejections - 35 USC § 103

In the argument, regarding to claim 1, applicant stated that Archibald does not disclose measuring usage according to object instances instantiated from a distributed object class. Examiner respectfully disagrees. As examiner specified in the previous office action, when a software module is running, i.e, instances or objects class in the software module are executed, when a software module stops running, instances or objects class stop executing. Therefore, measuring the usage (i.e. the length of use) of software module is based on whether instances or objects class in the software module are executed. Although Archibald does not specify an object-oriented software module,

Archibald does teach digital application distributes to the user is not limited to a software application, a multimedia application (see column 11, lines 33-42), thus it is obvious that the user can request a software application written in object-oriented programming language such as Visual Basic, C++, etc..., using an object-oriented programming language to create a software application is well known in the art.

In conclusion, for the reason above, examiner decides to maintain the previous rejection (also see details below) and make this action FINAL.

4. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections - 35 USC §101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 53-55 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims, as presently claimed and best understood were reconsidered in light of the "Examination Guidelines for Computer-Related Inventions" and were found to be non-statutory because the claims recite **Functional Descriptive Material per se (data structure per se and computer program per se)**. The claims recite "memory containing a software module structure comprising: a supplier identification, a product description, a billing definition, and an executable program", therefore, *the claims neither recite a series of steps or a specific software to be performed on a specific apparatus nor a specific apparatus for performing a process. "Specific software" is defined as a set of instructions implemented in a specific program code segment.* See Computer Dictionary 78 (Microsoft Press, 2d ed. 1994) for definition of "Code segment." The claimed invention defines no such instructions. Therefore, the claims are not intended to be limited to specific software and the claimed invention encompasses any and every computer-implementation of the process.

It is for these reasons that these claims are deemed to be non-statutory.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-12, 14-44, 53-55, and 74-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Archibald et al (hereinafter Archibald), U.S. Patent No. 5,825,883.

Regarding claim 1, Archibald discloses a method for charging customers for use of software comprising the steps of:

establishing a use-based pricing scheme for a set of software modules (column 7, lines 53-67);

distributing the set of software modules to a customer (column 4, lines 20-50);

monitoring customer use of the software modules (column 4, lines 50-65); and

charging the customer according to use of the distributed software modules as determined during the monitoring step (column 4, lines 50-60).

Archibald is silent in the use of such words "class", "object" in the software module. However, it is well known in the art that software modules comprises at least one object class and object instances. Class is an abstract data type or programmer-defined type that is used for creating abstract data type for a software module. A class is a template from which many instances (objects) are created (see Headington, "Data abstraction and structures using C++", pages 110-116). Thus, when a software module is running, i.e., instances or objects class in the software module are executed. Therefore, Archibald does teach the set of software modules comprise at least one object class from which objects are instantiated on a customer system and software usage is measured according to object instances created from the at least on object class. For example, meter software module provide *the accounting information* (a class) includes many object instances: the digital application, the publisher, the user, and the amount of user (column 5, lines 41-45); *the application information* (a class) includes many object instances: digital application identification code, publisher identification code, an encryption key (column 6, lines 13-27), etc...

Regarding claim 2, Archibald further discloses the customer creates a number of instances from a software module, and use of the software module is measured

according to instances detected at a site of the customer during the monitoring step (the meter software module generates accounting information includes many instances the user information, user ID, user account number, etc.. (column 6, lines 48-60).

Regarding claim 3, Archibald further discloses instances created from a software module are periodically accessed to determine use during the monitoring step (the meter software module accumulates the accounting information for a predetermined period of time, column 12, lines 33-42).

Regarding claims 4 and 36, Archibald does not teach the monitoring step comprises registering each day that an instance created from a software module is active and wherein the charging step comprises charging the customer a daily rate for use of the software module. However, Official notice is taken that charging the customer a daily rate for use of the software module (see Ahmad, US 5,925,127, column 8, lines 65-67 and column 1, lines 50-51). Therefore, it is obvious to include charging the customer a daily rate for use of the software module in Archibald's for the purpose of time consuming.

Regarding claim 5, Archibald further discloses providing a demonstration mode for instances such that instances in the demonstration mode are executable at a customer site without charge (demonstration mode is "trial use field 166", column 9, lines 25-35).

Regarding claim 6, Archibald further discloses maintaining a single agreement governing use of instances created from the set of software modules for an enterprise (Many of instances are created when the user has terminated use of the software module, i.e. an application identification field, a price field, a user unit field, an amount user field, etc...,column 7, lines 40-67).

Regarding claim 7, Archibald further discloses monitoring a termination date for instances derived from a software module having a time-limited duration (instance "the rent to own field", column 9, lines 19-25).

Regarding claims 8, 26, and 41, Archibald does not explicitly teach the self-monitoring process software comprises includes functions for issuing a warning in response to detecting an upcoming expiration date for an instance of a software module or informing the customer of a need to reorder credit to continue using the executable software. Official notice is taken that these features are well known in the art (see Ahmad, US 5,925,127, column 14, line 28-column 15, line 5). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include these features in Archibald's for the purpose of reminding the customer the expired date of software, so the customer does not forget to re-order credit in order to continue to use the software.

Regarding claim 9, Archibald further discloses the steps of: maintaining an account for storing units of credit for a customer; and wherein charging step comprises decrementing the customer's credit account by an appropriate number of units of credit based upon monitoring step (column 7, lines 20-30).

Regarding claim 10, Archibald further discloses generating a report summarizing use of software modules at the customer site (column 7, lines 40-67).

Regarding claim 11, Archibald further discloses the charging step is based upon registered uses of a software module (column 7, lines 53-67).

Regarding claims 12 and 74, Archibald further discloses the registered uses of a software module are measured according to execution and creation of an instance from the software module (see claim 1 above for details).

Regarding claims 14-15, Archibald further discloses the software module is an object class for creating an application engine object or an object class for creating a view engine object (see claim 1 above for details and column 5, line 65-column 6, line 47, the software module is download to the meter module at the consumer computer).

Regarding claim 16, Archibald further discloses the monitoring step comprises determining a time duration that an object instantiated from a software module is active (column 8, lines 43-46).

Regarding claim 17, Archibald further discloses the monitoring step comprises registering execution of an instance that tracks throughput of a process (The embedded check data 76 is utilized by the meter module 26 to insure that during operation, the program is being executed as the publisher had intended, column 5, line 65-column 6, line 12).

Regarding claim 18, Archibald further discloses individual ones of the set of software modules are individually priced (column 7, lines 52-67).

Regarding claim 19, Archibald further discloses the set of software modules includes at least a first software module supplied by a third party vendor and further comprising the step of: compensating a third party vendor based upon a use by a customer of the first software module determined during the monitoring step (column 7, lines 20-30).

Regarding claims 20-21, Archibald further discloses the distributing step comprises transmitting the set of software modules via a network connection comprises an Internet connection (column 3, lines 64-65).

Regarding claim 22, Archibald further discloses a step of reporting usage information to a software brokerage facility (column 10, lines 33-45).

Regarding claim 23, Archibald further discloses the reporting step includes identifying the location of an instance created from a software module (an application identification field identifies which software module included in the particular combined digital application module 212, see figure 5 and column 10, lines 1-12).

Regarding claim 24, Archibald further discloses determining that a license manager has not reported to a software brokerage facility and in response registering a communication failure at a central licensing facility (column 19, lines 40-50).

Regarding claim 25, Archibald further discloses the monitoring step includes storing use information in summary format in a database (column 7, lines 40-67).

Regarding claims 27-28, Archibald further discloses the software modules relate to industrial manufacturing automation software or relate to industrial manufacturing information software (automation software: active application, information software: passive application column 2, lines 37-44).

Regarding claim 29, Archibald further discloses maintaining an agreement governing use of instances created from the set of software modules for an enterprise wherein the instances comprise both lifetime billed and use-based billed instances (column 7, lines 53-67 and column 9, lines 19-25 and see claim 1 for details).

Regarding claims 30, Official notice is taken that providing configuration tools enabling a user to create customized instances from the software modules is well-known in the art. For example, after the user is authorized to use the software module, for example, word processing software application rev. 5.1 (see Archibald's column 6, lines 17-20) the user download the software module into the user's PC. To install the word processing software application into PC, the software package provides the configuration tools to the user to customize the installation such as the choice of installing full version or custom, the choice of which folder the user want to save,

etc....This is old and well-known technique for installing a software module in the user's computer. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this feature in Archibald's for the purpose of helping the user to create customized instances based on the configuration tools in the software product.

Regarding claim 31, Archibald discloses a method for vending software in the form of software modules via electronic commerce channels comprising the steps of:

maintaining an electronic commerce site including a software module selection interface, the software module selection interface enabling a customer to request a software module for use at a customer site (column 4, lines 20-50);

providing a software module management framework to the customer for installation at a customer site, wherein the management framework includes components for registering use of the software module at the customer site (column 5, line 65-column 6, line 47); and

charging the customer based upon registered use of the software module (column 6, lines 48-67).

Moreover, see claim 1 for detail explanation of the use of "class" and "object" in Archibald's.

Regarding claim 32, Archibald further discloses the use of the software module comprises executing an instance created from the software module (column 6, lines 33-47).

Regarding claim 33, Archibald further discloses the use of the software module comprises creating an instance from the downloadable module (column 4, lines 30-32).

Regarding claim 34, Archibald further discloses registering use of the downloadable module provides a measure of throughput of an industrial process (The

embedded check data 76 is utilized by the meter module 26 to insure that during operation, the program is being executed as the publisher had intended, column 5, line 65-column 6, line 12).

Regarding claim 35, Archibald further discloses the module management framework supports creation of instances from software modules at the customer site having deferring use modes including at least: a lifetime mode and a use-based mode, and wherein method comprises the further step of registering execution of instances operating in the use-based mode (column 9, lines 19-25 and column 7, lines 40-67).

Regarding claim 37, Archibald discloses a method for charging customers for use of software comprising the steps of:

providing a set of individually identifiable units of executable software (column 7, lines 58-67;

individually pricing ones of the set of individually identifiable units of executable software (column 7, lines 58-67);

authorizing use of the executable software (column 6, lines 33-47); and

charging a customer based upon use of selected ones of the set of individually identifiable units of executable software (column 7, lines 58-67).

Moreover, see claim 1 for detail explanation of the use of "class" and "object" in software module of Archibald's.

Regarding claim 38, Archibald further discloses the authorizing step comprises transmitting a license file containing code enabling use by the customer of the executable software (column 6, lines 33-47 and column 11, line 28-column 12, line 22).

Regarding claim 39, Archibald further discloses the steps of: integrating self-monitoring process software within the executable software; and registering use of the

executable software by the self-monitoring process (column 4, lines 1-6 and column 5, line 65-column 6, line 12).

Regarding claim 40, Archibald further discloses the executable software is industrial automation software (active application, column 2, lines 38-44).

Regarding claim 42, Archibald discloses a method for charging customers for user of software comprising the steps of:

first providing a set of software modules for software customers (column 4, lines 20-35);

second providing a software licensing facility including a broker facility through which software customers pay for software execution units, and wherein the broker facility includes a set of software customer accounts (column 4, lines 20-35 and column 7, lines 20-30); and

charging a software customer account a number of software execution value units based upon the value of software modules utilized by a customer (column 7, lines 53-67).

Moreover, see claim 1 for detail explanation of the use of "class" and "object" in software module of Archibald's.

Regarding claim 43, Archibald further discloses the charging step is performed by an automated billing process (column 7, lines 20-30).

Regarding claim 44, Archibald discloses providing an on-line customer interface; and wherein the first providing step includes the step of providing a network interface enabling users to download software modules from a remote location (column 3, lines 64-65 and column 4, lines 30-32).

Regarding claims 53-55, Archibald discloses a software module facilitating automated distribution of software to customers comprising: a supplier identification; a

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product description; an executable program; a billing definition includes a usage rate and a lifetime rate (column 6, lines 33-60). Moreover, see claim 1 for detail explanation of the use of "class" and "object" in software module of Archibald's.

Claims 75-77 have similar limitations as found in claims 32-34, therefore, are rejected by the same rationale.

Conclusion

9. Claims **1-12, 14-44, 53-55, and 74-77** are rejected.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nga B. Nguyen, whose telephone number is (703) 306-2901. The examiner can normally be reached on Monday-Thursday from 8:30 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough, can be reached on (703) 308-0505.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

11. **Any response to this action should be mail to:**

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or faxed to:

(703) 305-7687, (for formal communications intended for entry)

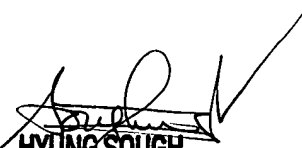
or:

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(703) 308-3961 (for informal or draft communications, please
label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park 5, 2451 Crystal
Drive, Arlington, VA, Seventh Floor (Receptionist).

Nga B. Nguyen
September 3, 2003


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